HISTORIC AMERICAN ENGINEERING RECORD

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ROUND LAKE AUDITORIUM, ORGAN — HAER NY-543-A
2 Wesley Avenue
Round Lake
Saratoga County
New York

INDEX TO BLACK AND WHITE PHOTOGRAPHS

Renee Bieretz, photographer, October 2010

NY-543-A-1	Exterior view of Round Lake Auditorium, looking northeast. The organ is located in the addition at right, behind the bell tower.
NY-543-A-2	General view of the organ from the front of the stage. The seven pipes in the central arch of the organ case are decorative, while the pipes in the flanking arches are operational. Note the recessed playing desk behind the bench at center.
NY-543-A-3	The playing desk includes (top to bottom) the Swell manual, Great manual, Choir manual, and Pedal board. Draw knobs for stops and couplers are in cruciform arrangements on both sides. The handle above the left-hand draw knobs at one time controlled a water motor that powered a bellows to generate the wind. It is now inert.
NY-543-A-4	Detail view of the right-hand draw knob panel. The draw knobs within the cross moulding are stops for the Great and Choir divisions. The two on the bottom engage (left) and disengage (right) the full organ. The edge of one of the two sliding doors that conceal most of the playing desk between performances is visible at right. The padlock hasp is not original.

NY-543-A-5 Oblique view of the east side of the organ case, showing louvers for sound propagation, central access door, and Gothic Revival ornamentation details.

NY-543-A-6 This view inside the rear of the case at floor level shows (left to right) part of the mouth of a wooden 16-ft. Diapason pipe (Pedal division), a portion of the main reservoir, and the wind supply duct from the blower to the reservoir. The chain and sheave operate a damper in the supply duct that regulates the wind volume as the reservoir bellows rises and falls. Additional 16-ft. Diapason pipes are visible in the background. The metal pipe at top center is part of the Choir division.

NY-543-A-7 One corner of the secondary reservoir, seen through an open access door in the front of the case. Note the leather bellows, the pantagraph (one of two that ensure the bellows remains level as it rises and falls), and the stone weights that establish the reservoir's air pressure. The main reservoir has similar components. Also visible are a few horizontal stop rods at upper left and V-shaped springs above the reservoir that reduce the force needed to move some stop linkages.

NY-543-A-8 Some of the Great division pipes, with pipes for natural notes at right and sharp notes at left. Note that the wind chest supporting these pipes is split with a walker board between the two halves. Both circular metal and square wooden pipes can be seen. The large background pipes are the decorative ones visible through the case's central arch opening. This is on the organ's middle level, about 8 ft. above the floor.

NY-543-A-9 Great division natural-note pipes. Each row of increasingly larger pipes is a rank, or stop, with a distinct timbre. Note that some ranks contain both metal and wooden pipes. The linkages visible at upper left are trackers and squares that operate the two ranks of Pedal division pipes mounted on the top level behind the front façade.

NY-543-A-10 This view looking toward the back side of the front façade on the top level, about 16 ft. above the floor, shows one wall of the Swell division enclosure, with one access panel removed, at left and some of the smaller Pedal division pipes, as well as decorative details on the top of the case, in the background. Note the three-layer construction of the Swell division enclosure and the similarly constructed access panel on the walker board. The heavy timbers at upper right are part of the building's structure.

NY-543-A-11 A portion of the 16-ft. Bourdon (near) and 16-ft. Violincello (far) natural-note pipes of the Pedal division. Both ranks contain wooden and metal pipes, and the foot of each pipe rests on a wind chest. Note the crenellation on top of the case's front façade at upper right.

NY-543-A-12 Approximately one-half of the Choir division pipes are visible in this view looking toward the rear of the organ on the middle level. Note the different styles of pipes in the various ranks, and that some ranks have stopped (closed) pipes while others are open on top. The background panel is the building's south wall.

NY-543-A-13 Approximately two-thirds of the Choir division pipes are visible in this view looking east on the middle level. A portion of the back side of the Swell division roller board is visible at upper left. The Swell division pipes and enclosure are mounted directly above these pipes.

NY-543-A-14 A portion of the Swell division pipes are visible in this view looking toward the front of the Swell enclosure. Some of the hollow shades for dynamic control are visible in the background, partially opened. At lower left is the opening into the annex that was installed to accommodate four additional pipes in each rank that were needed when the organ's compass was changed from G to C. A small portion of the wind chest slider extensions can be seen at the bottom of the opening. This is on the organ's top level.

NY-543-A-15 This view looking through the Swell enclosure's front opening (with two shades removed) shows metal Trumpet pipes in foreground and wooden Stopped Diapason pipes in background. The pipes with small-diameter resonators comprise a portion of the Sesquialtra III stop.

NY-543-A-16 Ten shades across the Swell enclosure's front opening provide dynamic control of the Swell division. All except the top shade are hollow. Controlled by a foot pedal connected to the vertical rod at left, they can be set fully closed, partially open, or fully open, as seen here. Only the Swell division has an enclosure and shades.

NY-543-A-17 This annex was installed on the Swell division enclosure to accommodate four additional pipes per rank when the organ's compass was changed from G to C. Most of these pipes, the highest pitched ones in the division, are visible through the open top. This view, looking toward the rear of the organ at its top level, also shows the tops of four wooden Pedal division pipes at right. These Open Diapason (left) and Open Double Diapason (right) pipes are among the lowest pitched pipes in the instrument. The notches and partial caps, called visors, were needed to voice and tune these pipes.

NY-543-A-18 In this view looking toward the front of the organ at its top level, the Swell division enclosure annex is visible at right with its top closed, making the annex an integral part of the enclosure. Note the Pedal division Open Double Diapason and Open Diapason pipes at left.

NY-543-A-19 The largest Pedal division pipes rest on wind chests mounted above the floor on each side of the instrument. Five wooden Open Diapason pipes are visible in this view looking toward the front of the organ. Because of space restrictions, the distant pipes had to be offset and mounted on short conductors from the wind chest. The small slide valve visible at the foot of one pipe closes the hole if the pipe needs to be removed for maintenance. Note the louvers in the side of the organ case at right.

NY-543-A-20 Detail view of the bottom end of two Pedal division Open Double Diapason pipes. The languid is visible inside one pipe's mouth, as are ears on each side. Note that the upper lips of these mouths are slightly curved, but with different curvatures. This was done individually as needed when these pipes were voiced.

NY-543-A-21 With a panel above the manuals removed, much of the organ's mechanical action can be seen. Swell division key action in the center includes (front to rear) key backfalls, vertical stickers, squares for direction change, and horizontal trackers. The Great division roller board frame is at top, and tracers from the stop draw knobs are visible on both sides. Except for small fittings, these components are entirely wooden.

NY-543-A-22 This view of the same area as in the previous view, but from the rear of the organ, shows the Choir division roller board frame (top), with vertical trackers and squares below. The close spacing of the lower vertical trackers matches the dimensions of the Choir manual, while the trackers visible through the frame are spread out to match the dimensions of the Choir wind chest. One of each type tracker is attached, via a small arm, to one of the horizontal rollers, which rotates to transfer the reciprocal motion of one tracker transversely to the other.

NY-543-A-23 Oblique view of the Swell division roller board, located on the middle level. Vertical trackers from the manual connect to small arms on the rollers' distant ends, while trackers up to the wind chest are similarly connected in the foreground. Each roller rotates to transfer the reciprocal motion of one distant tracker transversely to one nearside tracker. This accommodates the difference in horizontal dimensions between the manual and wind chest. The Great and Choir divisions have similar roller boards.

NY-543-A-24 Detail of adjustable connections of Swell rollers to vertical trackers showing the roller arms and bearings, trackers, and the adjustment fittings. These threaded metal-and-plastic fittings replace the leather buttons originally installed, but the threaded rods and their attachments to the trackers using whipping is original. The opposite, non-adjustable end of each tracker employs a pin through the arm and tracker. These connections exhibit minimal friction and lost motion. The Great and Choir roller boards have identical connections.

NY-543-A-25 Detail of the non-adjustable ends of the four roller-tracker connections added to the Swell division during the instrument's compass change. While they function like the other, original connections, the details of their design differ.

NY-543-A-26 The Pedal division utilizes rollers to transmit key action along the Double Open Diapason wind chests on each side of the organ. Horizontal trackers from the pedal board rotate the squares visible in lower center. This motion is conveyed via vertical trackers and rollers to the pallet wires (two visible at lower and bottom right), which open pallets inside the ventil wind chest to admit wind to the pipes, causing the selected notes to speak. This view is at floor level, with the rear of the case's front façade in the background. The Open Diapason rank (out of sight at right) is similar. Note the louvers in the organ case at left and the offset pipe at top left.

NY-543-A-27 This view behind the pedal board shows the heavy tails of the pedal keys in the center and trackers along the floor to one pair of the Open Diapason and Open Double Diapason wind chests in the far background. The small structure supporting metal pipes in the background is part of the Open Diapason rank. Similar trackers actuate the other pair of wind chests for these two ranks located behind the photographer's position. The vertical trackers (left center) and horizontal backfalls (top) are part of the coupler system between the three manuals and the pedal board.

NY-543-A-28 This view behind the pedal board shows (top to bottom) Choir manual trackers (the Great and Swell manuals' trackers are directly above, but out of sight); three movable stickers that engage the Great to Pedal, Choir to Pedal, and Swell to Pedal couplers; one of the idlers; and a sticker to the end of a pedal key backfall. When one of these couplers is engaged, the movable stickers rotate right to left about a pivot at the idler so that their top ends will push up on the appropriate manual keys when a pedal key is depressed, thereby causing that manual note to speak. Each of the 30 pedal keys has a set of these backfall-and-idler type couplers.

NY-543-A-29 The Swell stops are actuated by these vertical rocking levers at left, which are connected via short traces and squares to the long traces from the stop draw knobs in the playing desk. The upper end of each rocking lever moves a slider in the Swell wind chest to select one rank of pipes when its draw knob is pulled out. Only the Swell division uses this arrangement. Note the rear of the Choir division roller board frame at upper right.

NY-543-A-30 Detail view, looking between two Pedal division pipes, of three Swell division rocking levers. Note that the left one has a trace that passes away from the viewer through a conduit in a vertical wooden wind duct. Space constraints made this arrangement necessary.

NY-543-A-31 With the case panel above the manuals removed, two of the horizontal slider connections between the Great division's split wind chest can be seen at top. Part of the Great division roller board frame is at bottom, and some of the vertical trackers from it up to the Great wind chest are visible on both sides. Note that they terminate at the pallet wires, which penetrate the bottom of the Great wind chest. Behind the slider connections, some of the vertical trackers to the Swell roller board can be seen.

NY-543-A-32 The Choir (top left) and Pedal (bottom) division stops are actuated by the traces visible here. The Choir stops have horizontal traces and squares from the draw knobs (not visible, see NY-543-A-34), which connect to this second set of squares that actuates the vertical traces. The Pedal division traces and squares for the Open Diapason (right) and Open Double Diapason ranks are larger than those for the other divisions. These actuate vertical gate valves (out of view at bottom) instead of sliders. The valve must move farther than a slider, but one of the squares has unequal legs so that the draw knob motion matches that of the other stops. Two links (not visible) connect the draw knob traces to a similar set of traces and squares on the opposite side of the organ. One knob actuates both wind chests simultaneously. Note the vertical wooden wind trunk from the secondary reservoir to the Choir and Swell wind chests just right of center.

NY-543-A-33 These horizontal, weighted arms counterbalance the weight of the vertical traces in the Choir division stop action. The Choir wind chest is at top right. This is on the middle level, with the building's south wall visible in the background.

NY-543-A-34 Detail view of some of the long horizontal traces (center) that are connected to Choir division draw knobs (out of sight at upper left) along with squares and horizontal traces set at at right angles to them. One of the Pedal division traces (bottom) terminates at a vertical trundle. When its draw knob is pulled, the trundle rotates to move arms connected to traces and squares that actuate gate valves on both sides of the organ. See NY-543-A-32 for components at the other end of these two systems.

NY-543-A-35 Detail view of the gate valve for one of the two Open Double Diapason ventil wind chests. When selected, the trace at top left rotates the square that, in turn, pulls up on the wire to lift the gate valve in the horizontal wind trunk. A coil spring counterbalances the valve's weight. The similar action for the Open Diapason rank is visible in the background. Note the portion of the primary reservoir and one of its stone weights at left.

NY-543-A-36 This view shows the pumping handle originally used to work a bellows that generated wind for the instrument and the pedal board assembly that was replaced by a new duplicate in 1979. For historical integrity, these and other obsolete components, including removed pipes, are preserved with the organ.